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RICHARD W. WIEKING  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA - SAN FRANCISCO DIVISION

GEERTSON SEED FARMS INC., TRASK  
FAMILY SEEDS, CENTER FOR FOOD  
SAFETY, BEYOND PESTICIDES,  
CORNUCOPIA INSTITUTE, DAKOTA  
RESOURCE COUNCIL, NATIONAL FAMILY  
FARM COALITION, SIERRA CLUB, AND  
WESTERN ORGANIZATION OF RESOURCE  
COUNCILS,

Plaintiffs,

v.

MIKE JOHANNIS, *in his official capacity as  
Secretary of the United States Department of  
Agriculture*, RON DEHAVEN *in his official  
capacity as Administrator of the Animal Plant  
Health and Inspection Service, United States  
Department of Agriculture*, and STEVE  
JOHNSON *in his official capacity as  
Administrator of the United States Environmental  
Protection Agency*,

Defendants,

and

MONSANTO COMPANY, FORAGE GENETICS,  
INC., JOHN GROVER, DANIEL MEDEROS, and  
MARK WATTE,

Intervenor-Defendants.

**NO. C 06-01075 CRB**

**NOTICE OF APPEAL**

Intervenor-Defendants Forage Genetics, Inc., John Grover, Daniel Mederos, and Mark Watte appeal to the United States Court of Appeals for the Ninth Circuit from the Amended Judgment entered in this action on July 23, 2007, including the May 3, 2007 Judgment incorporated therein and all orders subsumed within those judgments, including but not limited to the orders vacating the June 2005 Roundup Ready alfalfa deregulation order issued to the United States Department of Agriculture, Animal, Plant, Health and Inspection Service ("APHIS"), requiring APHIS to prepare an Environmental Impact Statement before deciding on the deregulation petition submitted by Forage Genetics, Inc. and Monsanto, and granting Plaintiffs' request for permanent injunctive relief, including a ban on planting of Roundup Ready Alfalfa, known as J101 and J163. True and correct copies of the Judgments and Orders are attached hereto as Exhibit A.

Intervenor-Defendants Forage Genetics, Inc., John Grover, Daniel Mederos, and Mark Watte hereby submit with this Notice a filing fee for the Notice of Appeal in the amount of \$455.00, payable to the Clerk, U.S. District Court.

Dated: August 16, 2007

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18  
 19 IN THE UNITED STATES DISTRICT COURT  
 FOR THE NORTHERN DISTRICT OF CALIFORNIA  
 20 SAN FRANCISCO DIVISION

21	GEERTSON SEED FARMS INC., <u>et al.</u>	)	Case No. C-06-1075 (CRB) (EDL)
22	Plaintiffs,	)	
23	vs.	)	<b>AMENDED JUDGMENT</b>
24	MIKE JOHANNNS, <u>et al.</u> ,	)	
25	Defendants,	)	

26  
 27 On May 3, 2007, this Court issued its Judgment. Thereafter, the Court granted  
 28 defendants' Rule 59 Motion to Alter or Amend 3 May 2007 Judgment. Order Re: Motion  
 to Amend Judgment (filed 26 June 2007)("Rule 59 Order"). Pursuant to the Rule 59 Order,

1 the Court's Judgment is hereby amended, as follows.

2 **I. Storing Roundup Ready Alfalfa in Clearly-Labeled Containers**

3 In Section III of the Judgment, the Court required APHIS to impose certain handling,  
4 identification, and containment standards for Roundup Ready Alfalfa ("RRA") in an  
5 administrative order.

6 These standards shall not be applied to RRA hay, unless that hay leaves its farm of  
7 origin. Where RRA hay leaves its farm of origin, it need not be containerized but instead  
8 shall be clearly labeled.

9 **II. Cleaning Procedures**

10 In Section II, Subsection A of the Judgment, the Court required APHIS to issue an  
11 administrative order enabling it to both impose and individually approve certain cleaning  
12 procedures "prior to implementation."

13 In lieu of this requirement that APHIS approve individual cleaning procedures before  
14 implementation, APHIS shall publish and distribute a best practices guide for the cleaning  
15 of equipment used to produce RRA hay and seed. This guide shall be available on the  
16 APHIS website by July 13, 2007, and APHIS shall also begin distributing it by mail at that  
17 time to RRA hay and seed producers.

18 **III. Deadline for Providing RRA Field Information to the Government**

19 The Judgment also required Monsanto and Forage Genetics to provide APHIS with  
20 the RRA field location information described therein. On or before August 27, 2007,  
21 Monsanto and Forage Genetics shall file a status report describing their progress in supplying  
22 the remaining RRA hay crop location information (1) specific to the 17 Western states and  
23 (2) specific to the eastern United States.

24 **IV. Public Disclosure of the Location of RRA**

25 In its Judgment, the Court required APHIS to disclose RRA location information on  
26 its website "as soon as practicable." Pursuant to the Court's Rule 59 Order, APHIS will  
27 disclose the RRA locations to farmers only, under a three-part disclosure mechanism.

28

1 First, within one week after entry of this Court's Amended Judgment, APHIS shall  
2 disclose to farmers the counties in the 17 Western states in which RRA seed or hay fields are  
3 located. This disclosure shall be on the website of APHIS' Biotechnology Regulatory  
4 Service (APHIS/BRS) homepage. It shall be accessed by a link at this website's bottom right  
5 side that reads "I want to learn about the status of Roundup Ready alfalfa." Further, on the  
6 same website, and within 30 days of the status report filed by Monsanto and Forage Genetics,  
7 described above, APHIS shall publish a time line for the expected disclosure of RRA location  
8 information for the remaining Eastern states.

9 Second, within two weeks after entry of the Court's Amended Judgment, APHIS shall  
10 specify both on this website and in a the Federal Register a toll-free number that farmers in  
11 or adjacent to those identified counties may use to request the distances from the nearest  
12 RRA fields to their crops. Upon calling this number, a farmer shall certify to APHIS that the  
13 caller is a farmer that either grows alfalfa now or intends to grow alfalfa at an existing  
14 location in or adjacent to a county identified on the APHIS website.

15 Third, APHIS will respond as quickly as practicable to requests from farmers through  
16 the toll free number, either immediately or by the next working day whenever feasible, and  
17 will use its best efforts when questions arise regarding imprecise data or under other  
18 unanticipated circumstances to respond within three working days. In responding to a request  
19 by a farmer hereunder, APHIS will provide the requesting farmer with the distances, within  
20 the county or adjacent county identified, from the nearest RRA fields to the requestor's crop  
21 location(s). APHIS shall provide such distances for five such RRA fields if five or more of  
22 such fields exist in the relevant county or adjacent county.

#### 23 **V. APHIS Administrative Order**

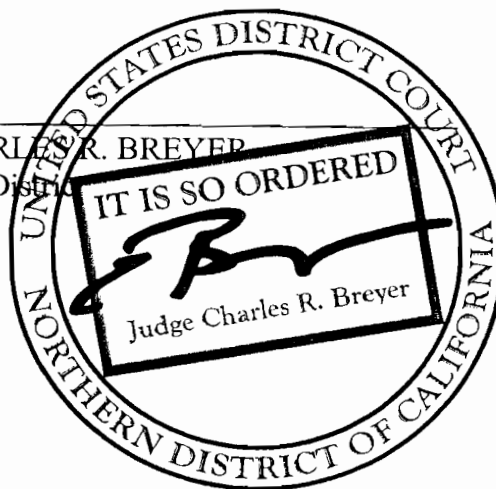
24 APHIS shall implement the Court's Judgment, as amended, by issuing an  
25 administrative order on or before July 13, 2007. It shall be posted on the APHIS website.  
26  
27  
28



Signed: July 23, 2007

CHARLES R. BREYER

U.S. District Judge





United States District Court  
For the Northern District of California

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA

GEERTSON FARMS INC., et al.,

No. C 06-01075 CRB

Plaintiffs,

**JUDGMENT**

v.

MIKE JOHANNNS, et al.,

Defendants, and

MONSANTO COMPANY, et al.,

Intervenors-Defendants.

The Court having granted plaintiffs' motion for summary judgment on their NEPA claims by Memorandum and Order dated February 13, 2007, and having dismissed plaintiffs' remaining claims, judgment is entered in favor of plaintiffs and against the federal defendants on the NEPA claims.

The federal defendants' June 14, 2005 Determination of Nonregulated Status for Alfalfa Genetically Engineered for Tolerance to the Herbicide Glyphosate is VACATED. Before granting Monsanto's deregulation petition, even in part, the federal defendants shall prepare an environmental impact statement ("EIS"). Until the federal defendants prepare the EIS and decide the deregulation petition, no Roundup Ready alfalfa, known as J101 and J163, may be planted. This injunction does not apply to the permit process for regulated



1 articles administered by the Animal and Plant Health Inspection Service (“APHIS”).

2 Roundup Ready alfalfa planted before March 30, 2007 may be grown, harvested and  
3 sold subject to the following conditions. In particular, within 45 days of this Judgment, the  
4 federal defendants shall issue an administrative order imposing the following requirements:

- 5 I. Pollinators shall not be added to Roundup Ready alfalfa fields grown only for  
6 hay production.
- 7 II. Farm equipment used in Roundup Ready alfalfa production shall be properly  
8 cleaned after use.
- 9 A. Cleaning procedures for harvesters, tractors and tillage equipment shall  
10 be submitted to and approved by APHIS prior to implementation.
- 11 B. Cleaning procedures shall be designed to minimize the risk of Roundup  
12 Ready alfalfa seed and hay movement from authorized production sites.
- 13 C. All equipment shall be cleaned in accordance with the approved  
14 procedures before it leaves the farm on which it came in contact with  
15 Roundup Ready alfalfa.
- 16 III. Roundup Ready alfalfa shall be handled and clearly identified to minimize  
17 commingling after harvest. Immediately after harvest, growers or seed  
18 producers shall store Roundup Ready alfalfa in specifically designated and  
19 clearly labeled containers.

20 Monsanto, Forage Genetics and APHIS shall work together to ensure that all Roundup  
21 Ready alfalfa farmers are aware of the above requirements.

22 Within 30 days of the judgment, Forage Genetics shall provide APHIS with GPS or  
23 plat mats identifying the location of all Roundup Ready alfalfa seed production acreage as  
24 well as the field size and GPS locations of Roundup Ready alfalfa hay fields for the 17  
25 Western states in which Forage Genetics collects such information. APHIS shall make such  
26 information publicly available as soon as practicable, including, but not limited to, making  
27 such information available on the appropriate government website. Forage Genetics shall  
28

1 also use its best efforts to obtain field size and GPS locations of Roundup Ready alfalfa in  
2 the remaining states and provide such information to APHIS for public disclosure.

3 The parties shall jointly submit a written status report within 60 days of the date of  
4 this Judgment to update the Court on defendants' compliance with the injunction.

5 **IT IS SO ORDERED.**

6 Dated: May 3, 2007

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8 CHARLES R. BREYER  
9 UNITED STATES DISTRICT JUDGE  
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United States District Court  
For the Northern District of California



United States District Court  
For the Northern District of California

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA

GEERTSON FARMS INC., et al.,

Plaintiffs,

v.

MIKE JOHANNNS, et al.,

Defendants, and

MONSANTO COMPANY, et al.,

Intervenors-Defendants.

No. C 06-01075 CRB

**MEMORANDUM AND ORDER RE:  
PERMANENT INJUNCTION**

By Memorandum and Order dated February 13, 2007, the Court concluded that the federal defendants violated the National Environmental Protection Act ("NEPA") by failing to prepare an environmental impact statement ("EIS") before deregulating alfalfa genetically engineered to resist the herbicide Roundup ("Roundup Ready alfalfa"). The Court held that an EIS is required because of the potential significant environmental impact of gene transmission; specifically, the acknowledged risk that the genetically engineered gene will "contaminate" organic and conventional alfalfa. The Court also found that the federal defendants had failed to adequately consider the deregulation decision's impact on the development of Roundup-resistant weeds.

1 Now pending before the Court are the parties' competing proposals for permanent  
2 injunctive relief, various motions to strike, the intervenors' motion to file a surreply, the  
3 motion of the American Farm Bureau Federation to file an amicus brief, and the intervenors'  
4 motion for reconsideration of the preliminary injunction order. The motion to file a surreply  
5 and the motion to file an amicus brief are granted.

## 6 BACKGROUND

### 7 A. The NEPA Violation

8 The government, specifically, the Animal and Plant Health Inspection Service  
9 ("APHIS"), chose not to prepare an EIS before it deregulated Roundup Ready alfalfa;  
10 instead, it issued a "Finding of No Significant Impact" ("FONSI"), finding that the  
11 deregulation of Roundup Ready alfalfa would not have a significant environmental impact.  
12 The Court concluded that APHIS's "no significant environmental impact" finding was  
13 erroneous. February 13, 2007 Memorandum and Order "(NEPA Order)".

14 APHIS's position before the Court is, or at least was, that "even if deregulation of  
15 Roundup Ready alfalfa could result in the elimination of all non-genetically engineered  
16 alfalfa—in other words, there would be no alfalfa grown in the United States that does not  
17 contain the engineered gene that confers tolerance to glyphosate—such a result would still not  
18 constitute a significant environmental impact because APHIS has determined that the  
19 introduction of that gene to alfalfa is harmless to humans and livestock, that is, it is not toxic  
20 or pathogenic." *Id.* at 12. The Court rejected this reasoning and concluded that the  
21 contamination of conventional and organic alfalfa with the Roundup Ready gene is itself an  
22 impact that is harmful to the human environment. *Id.* at 13-14.

23 Moreover, even though APHIS acknowledged that gene transmission could and had  
24 occurred with Roundup Ready alfalfa, it refused to analyze the likely extent of such gene  
25 flow and how it could be eliminated, or at least minimized; that is, how Roundup Ready  
26 alfalfa could co-exist with conventional and organic alfalfa. APHIS instead reasoned that it  
27 is, in effect, the organic and conventional alfalfa growers' responsibility to ensure that the  
28 genetically-engineered traits from neighboring crops do not spread to their own crops. *Id.* at

1 8-9. APHIS also found that gene transmission is not likely to occur with forage as opposed  
2 to seed crops because forage fields are typically harvested before the seed matures. Id. at 9.  
3 The Court concluded that APHIS's failure to analyze the likely extent of gene flow and  
4 whether any measures could be effectively implemented to prevent such contamination did  
5 not demonstrate the "hard look" required by NEPA. Id. at 9-10. APHIS's conclusion as to  
6 forage crops was similarly inadequate given that it offered no evidence as to how often  
7 farmers are actually able to harvest their forage crops before seed matures and it made no  
8 inquiry into the likelihood of gene transmission when, due to weather, they cannot. Id. at 10.

9 APHIS had also acknowledged that the deregulation of Roundup Ready alfalfa could  
10 result in the development of Roundup-resistant weeds, but in the FONSI it nevertheless  
11 found this risk was not "significant" because the development of herbicide-resistant weeds is  
12 common and "the agricultural community is addressing the issue." Id. at 15. The Court held  
13 that this analysis, too, is not the "hard look" NEPA requires. Id.

14 **B. Procedural History**

15 After the Court granted plaintiffs' motion for summary judgment and ordered the  
16 parties to address an appropriate remedy, it granted the motions to intervene brought by the  
17 following: Monsanto Company ("Monsanto"), the owner of the intellectual property rights in  
18 Roundup Ready alfalfa; Forage Genetics Inc. ("Forage Genetics"), a Monsanto licensee and  
19 the exclusive developer of Roundup Ready alfalfa seed; a Roundup Ready alfalfa seed  
20 farmer under contract with Forage Genetics; a California farmer who, among other crops, has  
21 planted 40 acres of Roundup Ready alfalfa for forage; and a dairy farmer with 300 acres  
22 planted with Roundup Ready alfalfa.

23 After considering legal and evidentiary submissions from all parties, including the  
24 intervenors, and having had the benefit of several hours of oral argument, the Court vacated  
25 APHIS's June 2005 deregulation decision and issued a preliminary injunction which  
26 maintains the status quo while at the same time allowing those farmers who had plans for the  
27 imminent planting of Roundup Ready alfalfa to proceed with their planting. In particular, the  
28 Court allowed all Roundup Ready alfalfa which had been planted since APHIS's



1 deregulation decision to be grown, harvested, and sold without restriction, but it preliminarily  
2 enjoined all future planting of Roundup Ready alfalfa beginning March 30, 2007. The delay  
3 allowed those growers who had intended to plant Roundup Ready alfalfa during the three  
4 weeks following the preliminary injunction order, and had already purchased the seed, to  
5 plant the genetically-engineered seed. All future sales of Roundup Ready alfalfa seed and  
6 post-March 30, 2007 plantings of Roundup Ready alfalfa were prohibited pending the  
7 Court's issuance of permanent injunctive relief. The Court also scheduled a hearing on the  
8 scope of the permanent injunctive relief.

9 The parties have filed voluminous submissions as to permanent relief. Plaintiffs seek  
10 an order maintaining the status quo: the future planting of Roundup Ready alfalfa is enjoined  
11 pending the preparation of an EIS and APHIS's decision on Monsanto's deregulation  
12 petition. They also seek to enjoin the harvesting of any previously-planted Roundup Ready  
13 alfalfa seed and to require the publication of information as to the location of current  
14 Roundup Ready alfalfa crops.

15 APHIS and the intervenors (collectively "defendants") oppose the maintenance of the  
16 status quo; instead, they seek a remedy that facilitates the continued and dramatic growth of  
17 the Roundup Ready alfalfa market. There are currently approximately 200,000 acres planted  
18 with Roundup Ready alfalfa for forage and another 20,000 acres planted for seed.  
19 Intervenors estimate that absent plaintiffs' proposed injunction the acreage of Roundup  
20 Ready alfalfa planted for forage will increase to more than a million acres by 2008, a five-  
21 fold increase, and there will be a proportional increase in the number of acres planted for  
22 seed. Mark McCaslin March 23 Direct Testimony at 13. Defendants' seek, in effect, a  
23 partial deregulation that permits the continued expansion of the Roundup Ready alfalfa  
24 market subject to certain conditions. Specifically, APHIS proposes to require isolation  
25 distances between Roundup Ready alfalfa crops and alfalfa seed production fields; to  
26 prohibit pollinators from being added to Roundup Ready alfalfa fields; and to require that  
27 Roundup Ready alfalfa growers identify and keep records of all alfalfa crops being grown  
28 within 500 feet of their fields. APHIS also proposes to require specific harvesting conditions

1 for Roundup Ready alfalfa fields to minimize gene flow in areas where growers are  
 2 producing non-genetically engineered alfalfa seeds, including specifying when the fields  
 3 must be harvested. Finally, farm equipment used in Roundup Ready alfalfa production must  
 4 be properly cleaned after use and Roundup Ready alfalfa must be handled and identified to  
 5 minimize commingling after harvest.

### 6 LEGAL STANDARD

7 Upon a finding of a NEPA violation an injunction does not automatically issue;  
 8 “injunctive relief is an equitable remedy, requiring the court to engage in the traditional  
 9 balance of harms analysis, even in the context of environmental litigation.” Forest  
 10 Conservation Council v. U.S. Forest Service, 66 F.3d 1489, 1496 (9th Cir. 1995); see also  
 11 National Parks & Conservation Ass’n. v. Babbitt, 241 F.3d 722, 737 (9th Cir. 2001) (“To  
 12 determine whether injunctive relief is appropriate, ‘even in the context of environmental  
 13 litigation,’ we apply ‘the traditional balance of harms analysis.’”) (internal citation omitted).  
 14 “[I]n the run of the mill NEPA case, the contemplated project, whether it be a new dam or a  
 15 highway extension, is simply delayed until the NEPA violation is cured,” that is, the balance  
 16 of harms favor issuance of an injunction. Idaho Watersheds Project v. Hahn, 307 F.3d 815,  
 17 833 (9th Cir. 2002); see also National Parks & Conservation Ass’n., 241 F.3d at 737  
 18 (holding that “where an EIS is required, allowing a potentially environmentally damaging  
 19 project to proceed prior to its preparation runs contrary to the very purpose of the statutory  
 20 requirement”). An injunction is appropriate because “[e]nvironmental injury, by its nature,  
 21 can seldom be adequately remedied by money damages and is often permanent or at least of  
 22 long duration, i.e., irreparable.” National Parks & Conservation Ass’n., 241 F.3d at 737  
 23 (internal quotation marks and citation omitted); see also High Sierra Hikers Association v.  
 24 Blackwell, 390 F.3d 630, 642 (9th Cir. 2004) (“the presence of a strong NEPA claim gives  
 25 rise to more liberal standards for granting an injunction”) (internal quotation marks and  
 26 citation omitted).

27 The Ninth Circuit has nevertheless recognized that “in ‘unusual circumstances’ an  
 28 injunction may be withheld, or, more likely, limited in scope.” National Parks &

1 Conservation Ass'n, 241 F.3d at 737 n.18; see also Forest Conservation Council, 66 F.3d at  
2 1496 (holding that the defendants "should be allowed to present evidence to the court that  
3 'unusual circumstances' weigh against the injunction sought").

#### 4 DISCUSSION

##### 5 A. **An Injunction Against the Continued Growth of the Roundup Ready Alfalfa Market**

6 The Court's preliminary injunction order maintained the status quo by prohibiting any  
7 planting of Roundup Ready alfalfa after March 30, 2007. Defendants ask the Court to permit  
8 the continued dramatic expansion of the Roundup Ready alfalfa market pending APHIS's  
9 preparation of the legally-required EIS, provided certain conditions are met. In support of  
10 their proposal, defendants offer evidence from several experts, as well as employees of the  
11 intervenors, opining that if the isolation distances and other conditions are satisfied, the risk  
12 of gene flow is so small as to be outweighed by the harm to Monsanto, Forage Genetics, seed  
13 distributors, and farmers who want to plant Roundup Ready alfalfa. As they explained at  
14 oral argument, they contend that in light of these proposed conditions, plaintiffs have not  
15 demonstrated irreparable harm and therefore a blanket prohibition on future plantings is not  
16 warranted.

17 After carefully reviewing defendants' voluminous evidence, including the evidence  
18 submitted in support of the intervenors' surreply, as well as plaintiffs' evidence, the Court  
19 declines to permit the expansion of the Roundup Ready alfalfa market while APHIS conducts  
20 the analysis it should have prepared before it allowed for the non-permitted introduction of  
21 the crop in the first instance.

22 In holding that APHIS violated NEPA, the Court concluded that APHIS had failed to  
23 adequately analyze the risk of gene flow and to what extent, if any, certain measures could be  
24 implemented to effectively prevent such contamination. Although APHIS has represented  
25 that it will take it approximately two years to prepare an EIS, it contends that during the  
26 month following this Court's summary judgment order it has conducted analysis sufficiently  
27 adequate to conclude that if its proposed conditions are imposed by the Court, gene flow will  
28 not occur, at least not in any significant respect, and therefore the Court should permit the



1 expansion of the Roundup Ready alfalfa market pending APHIS's preparation of an EIS.  
2 The Court is not persuaded.

3 The intervenors have requested an evidentiary hearing, apparently so the Court can  
4 assess the viability of its witnesses' opinions regarding the risk of contamination if APHIS's  
5 proposed conditions are imposed, as well as to resolve disputes with plaintiffs' witnesses.  
6 Plaintiffs and intervenors have also moved to strike much of the opposing parties' evidence  
7 on various grounds, including that a particular witness is not qualified to give the opinion  
8 stated.

9 To make the findings requested by defendants would require this Court to engage in  
10 precisely the same inquiry it concluded APHIS failed to do and must do in an EIS;  
11 defendants are in effect asking this Court to accept its truncated EIS without the benefit of  
12 the development of all the relevant data and, importantly, without the opportunity for and  
13 consideration of public comment. See The Lands Council v. Powell, 395 F.3d 1019, 1027  
14 (9th Cir. 2005) ("The purpose of NEPA is to require disclosure of relevant environmental  
15 considerations that were given a 'hard look' by the agency, and thereby to permit informed  
16 public comment on proposed action and any choices or alternatives that might be pursued  
17 with less environmental harm."). "[D]etermining what measures are needed through  
18 extensive fact intensive inquiry is precisely the purpose of the long term environmental  
19 review ordered by [the Court]." Idaho Watersheds Project, 307 F.3d at 83. As the Ninth  
20 Circuit has observed,

21 it would be odd to require the district court to conduct an extensive inquiry,  
22 which would by nature involve scientific determinations, in order to support  
23 interim measures that are designed to temporarily protect the environment  
while the [government] conducts studies in order to make the very same  
scientific determinations.

24 Id. Yet, defendants ask the Court to now conduct--based on a limited record--the very same  
25 scientific inquiry it ordered APHIS to do as part of the EIS process.

26 APHIS contends, in essence, that it can grant Monsanto's deregulation petition  
27 without preparation of an EIS as long as it imposes certain conditions on the introduction of  
28 the genetically-engineered crop. For example, APHIS's Director of Environmental Risk

1 Analysis Division represents that APHIS “is fully committed to preparing a comprehensive  
2 environmental impact statement (EIS) prior to deciding in the future whether [Roundup  
3 Ready Alfalfa] should be *unconditionally* deregulated.” Second Declaration of Neil Hoffman  
4 (March 7, 2007) ¶ 2 (emphasis added). Hoffman’s carefully chosen words reveal that APHIS  
5 is *not* committed to preparing an EIS before it conditionally deregulates Roundup Ready  
6 alfalfa, which is what it is attempting to do with its proposed permanent relief.

7 The Court rejects APHIS’s cramped reading of this Court’s Order and NEPA.  
8 APHIS’s decision on Monsanto’s deregulation petition is the major federal action requiring  
9 the preparation of an EIS; APHIS does not need to prepare an EIS only if it ultimately  
10 decides to *unconditionally* deregulate the genetically engineered crop. As the Court found in  
11 its NEPA Order, it is the significant threat of gene flow and the development of Roundup-  
12 resistant weeds that requires further study and analysis in an EIS so that APHIS can decide if  
13 deregulation is appropriate and, if so, under what, if any, conditions. NEPA Order at 10.  
14 The Court never suggested that APHIS could skip the EIS process and decide without any  
15 public comment that deregulation with certain conditions is appropriate.

16 In any event, defendants’ analysis is still inadequate. They have not submitted any  
17 evidence that suggests whether, and to what extent, the proposed interim conditions will be  
18 followed, even though such conditions are similar to those already imposed by Forage  
19 Genetics in its contracts with Roundup Ready seed growers and contamination has occurred  
20 despite those conditions. Defendants simply respond that the government has the authority to  
21 enforce the conditions, but having the authority and effectively using the authority are two  
22 different matters: the government has the authority to enforce the immigration laws, but  
23 unlawful entry into the United States still occurs. Moreover, APHIS asserts that it does not  
24 have the resources to inspect the 220,000 acres currently planted with Roundup Ready alfalfa  
25 hay. Second Declaration of Neil Hoffman (March 7, 2007) at ¶ 3. It does not explain how it  
26 expects to have the resources to adequately monitor the more than one million acres of  
27 Roundup Ready alfalfa hay intervenors estimate will be planted, and the concomitant  
28 increase in seed acreage, if, as they urge, the Court does not prohibit future plantings.

1 Another example of the continued inadequacy of defendants' analysis is their  
2 contention that requiring growers to harvest their crops before seed sets or before ten percent  
3 bloom will virtually eliminate any chance of contamination. In its NEPA Order the Court  
4 noted that the government had "failed to consider . . . that because of weather—which is  
5 beyond a farmer's control—a farmer cannot always harvest his field at the most optimal time."  
6 NEPA Order at 10. APHIS has still not made any inquiry (that it has shared with the Court)  
7 into "how often farmers are actually able to harvest their forage crop before seeds mature and  
8 no inquiry into the likelihood of gene transmission when they cannot." *Id.* Indeed, at oral  
9 argument on the preliminary injunction, the Court asked Mark McCaslin, the President of  
10 Forage Genetics, whether the Court should enter an order requiring harvest at a certain point  
11 to reduce the likelihood of gene flow. Mr. McCaslin candidly responded: "In the midwest  
12 where there is no seed production, that would be a disaster because there is—the challenge in  
13 the midwest is usually harvesting around the weather." March 8, 2007 Transcript at 27.

14 With this context in mind, the Court finds that plaintiffs have sufficiently established  
15 irreparable injury and that the balance of the equities weighs in favor of maintenance of the  
16 status quo and against allowing the continued expansion of the Roundup Ready alfalfa  
17 market pending the government's completion of the EIS. As the Court explained in its  
18 NEPA Order, contamination of organic and conventional alfalfa crops with the genetically  
19 engineered gene has occurred and defendants acknowledge as much. Such contamination is  
20 irreparable environmental harm. The contamination cannot be undone; it will destroy the  
21 crops of those farmers who do not sell genetically engineered alfalfa. Moreover, it is not a  
22 one season loss; alfalfa is a perennial crop and once removed cannot be replanted for two to  
23 four years. Mark McCaslin March 23, 2007 Direct Testimony at 6.

24 The harm to these farmers and consumers who do not want to purchase genetically  
25 engineered alfalfa or animals fed with such alfalfa outweighs the economic harm to  
26 Monsanto, Forage Genetics and those farmers who desire to switch to Roundup Ready  
27 alfalfa. Roundup Ready alfalfa is only 15 percent of Forage Genetics' total revenue and  
28 much, much less of Monsanto's. Moreover, intervenors do not contend that the harvested but



1 unsold seed cannot be stored until—and if—APHIS decides to deregulate Roundup Ready  
2 alfalfa after conducting an objective and thorough environmental analysis. The loss of  
3 anticipated revenue to Monsanto and Forage Genetics in the meantime “does not outweigh  
4 the potential irreparable damage to the environment.” National Park & Conservation Ass’n,  
5 241 F.3d at 738. Moreover, neither Monsanto nor Forage Genetics “have cause to claim  
6 surprise as a result of any injunction.” Id. They were aware of plaintiffs’ objections to the  
7 deregulation decision at the time it was made and were aware of plaintiffs’ lawsuit; they  
8 nonetheless chose to market Roundup Ready alfalfa.

9 The desire of some farmers to plant *more* Roundup Ready alfalfa or to *switch to*  
10 Roundup Ready alfalfa, that is, to do something different from what they have done in the  
11 past, similarly does not outweigh the potential for irreparable harm. And if these farmers  
12 were not aware of the plaintiffs’ challenge to Roundup Ready alfalfa, that is a matter to raise  
13 with Monsanto and Forage Genetics. See National Park & Conservation Ass’n, 241 F.3d at  
14 738 (noting that cruise ship passengers who were not warned by carrier of lawsuit  
15 challenging cruises “were not well served by that company”).

16 Allowing an expansion of the Roundup Ready alfalfa market pending the preparation  
17 of the EIS would be unprecedented. None of the cases cited by defendants allowed for an  
18 *increase* in the activity that posed the risk to environment. In Idaho Watersheds Project, for  
19 example, the district court found that the Bureau of Land Management had violated NEPA  
20 by issuing permits for cattle grazing without preparing the required environmental  
21 documentation. The district court considered and rejected a complete halt to all grazing,  
22 concluding that such a remedy would be too drastic. Id. at 833. Instead, the court allowed  
23 the previously-permitted grazing to continue pending the BLM’s completion of its  
24 environmental review, subject to certain conditions designed to mitigate the harm from the  
25 continued grazing. Id. The court did not, however, allow the BLM to issue additional  
26 permits, which is essentially what defendants ask for here. The “middle ground” taken by  
27 the court in Idaho Watersheds is the approach taken here: as will be discussed below, the  
28 Court is not requiring those farmers who have already planted Roundup Ready alfalfa to

1 destroy their crops; instead, the Court is prohibiting the introduction of any new Roundup  
2 Ready crops.

3 In High Sierra Hikers Association, another case cited by defendants, the court held  
4 that the government violated NEPA by issuing multi-year special-use permits to commercial  
5 outfitters and guides in the John Muir and Ansel Adams wilderness areas without first  
6 preparing and EIS. 390 F.3d at 640-41. The court did not require the permitted packers to  
7 cease operations; instead, the court crafted a remedy that allowed for the continued  
8 operations of the packers, provided the current levels of use were reduced by 20 percent. Id.  
9 at 642-43. Again, the court did not allow for the packers' operations to increase—or for new  
10 permits to be issued; to the contrary, the court reduced the level of commercial pack  
11 operations. Here, in contrast, defendants seek to *dramatically increase the amount of acres*  
12 *planted with Roundup Ready alfalfa* even though the Court has ruled that the government  
13 should have prepared an EIS before allowing the plantings in the first place. See also Sierra  
14 Club v. Penfold, 857 F.2d 1307, 1316-17 (9th Cir. 1988) (allowing mining operations begun  
15 prior to court's finding of NEPA violation to be completed, but prohibiting any additional  
16 mining operations); Northern Cheyenne Tribe v. Hodel, 851 F.2d 1152, 1154-55, 1157-58  
17 (9th Cir. 1988) (after finding that government awarded mining leases three years earlier in  
18 violation of NEPA, the district court suspended the mining operations in all but two of the  
19 mines; the Ninth Circuit held that the district court had discretion to balance the equities to  
20 allow the mining operations to continue, although it had done so on an inadequate record, but  
21 the court did not allow for an increase in mining); Westlands Water Dist. v. U.S. Dept. of  
22 Interior, 275 F.Supp.2d 1157 (E.D. Cal. 2002) (enjoining part of project, but allowing part of  
23 project to continue in light of a congressional mandate; court did not allow for an increase in  
24 the project pending completion of the environmental review); Wilderness Watch v. U.S.  
25 Forest Service, 143 F.Supp.2d 1186 (D. Mont. 2000) (court refused to order the destruction  
26 of wilderness lodge built without the required environmental assessments; court did not allow  
27 for the future construction of lodges while the environmental review was pending).

1 Finally, the Court rejects defendants' assertion that allowing an expansion in the  
2 Roundup Ready alfalfa market is in the public interest because it promotes the use of less  
3 toxic herbicides. The record reflects that organic and most conventional forage alfalfa is  
4 grown without the use of any herbicides. In any event, a finding that increasing the use of  
5 Roundup is in the public interest is premature in light of APHIS's failure to analyze the  
6 potential for the development of Roundup-resistant weeds. Moreover, it is not in the public  
7 interest to take action that has the potential of eliminating the availability of a non-genetically  
8 engineered crop without adequate investigation into the long term impact of such action;  
9 rather, the Court finds that it is in the public interest to delay the further introduction of  
10 Roundup Ready alfalfa into the environment while APHIS studies the environmental  
11 consequences of such action.

12 In sum, after balancing all of the equities, the Court in its discretion finds that an  
13 injunction maintaining the status quo by prohibiting the planting of Roundup Ready alfalfa  
14 after March 30, 2007 is appropriate. The Court cautions that it does not intend its injunction  
15 to apply to plantings of Roundup Ready alfalfa as a regulated article under permit from  
16 APHIS. While some lawsuits have challenged APHIS's permitting process for regulated  
17 articles, see, e.g., Int'l Center for Technology Assessment v. Johanns, 473 F.Supp.2d 9  
18 (D.D.C. 2007), this lawsuit challenges APHIS's action on Monsanto's deregulation petition.  
19 And plaintiffs have not established that APHIS will avoid the import of this Court's  
20 injunction by abusing the permit process. APHIS has represented under oath that its current  
21 permitting process is designed to regulate small scale field tests and that it does not have the  
22 resources to provide permits for and adequately monitor large acreage of Roundup Ready  
23 alfalfa. Second Declaration of Neil Hoffman (March 7, 2007) ¶ 3.

24 **B. Already Planted Roundup Ready Alfalfa**

25 As the Court noted in its preliminary injunction order, some growers have already  
26 planted Roundup Ready alfalfa in reliance on the federal defendants' June 2005 deregulation  
27 decision. Plaintiffs do not seek to enjoin such forage alfalfa from being grown, harvested  
28 and sold, and the Court agrees that such a remedy would be too drastic, especially in light of



1 the Court's order capping the number of acres of Roundup Ready alfalfa. See Seattle  
2 Audubon Soc'y v. Evans, 771 F.Supp. 1081, 1087-95 (W.D. Wash. 1991) (taking logging  
3 industry interests into account in conducting equitable balancing for environmental law  
4 violation, resulting in injunction of future timber sales, but not existing sales), aff'd, 952 F.2d  
5 297, 298 (9th Cir. 1991).

6 Plaintiffs do seek to enjoin the harvesting and sale of already planted Roundup Ready  
7 alfalfa seed. They contend that the risk of contamination from the mixing of the genetically-  
8 engineered seed with non-engineered seed outweighs any harm to those farmers with  
9 contracts with Forage Genetics to produce such seeds. The Court declines to impose such an  
10 order and interfere with the contracts entered into by these farmers. The record reflects that  
11 Forage Genetics has contracts with 76 farmers to grow Roundup Ready alfalfa seed. The  
12 financial burden to these farmers of an injunction preventing them from fulfilling their  
13 contracts outweighs the harm to the human environment in these limited circumstances. See  
14 Amoco Production Co. v. Gambell, 480 U.S. 531, 541, 544-45 (1987) (noting, in  
15 summarizing Ninth Circuit law, that "unusual circumstances" weighing against injunctive  
16 relief include "those in which an injunction would interfere with a long-term contractual  
17 relationship"); Sierra Club, 857 F.2d at 1316-17 (allowing mining operations begun prior to  
18 court's finding of NEPA violation to be completed, but prohibiting any additional mining  
19 operations).

20 The Court will impose certain conditions in an attempt to minimize the risk of gene  
21 flow from the already-planted genetically engineered alfalfa to organic and conventional  
22 alfalfa. As the alfalfa has already been planted, the Court will not impose isolation distances;  
23 however, the Court will adopt the relevant conditions proposed by APHIS. In particular,  
24 within 45 days of the date of this Order, APHIS shall issue an administrative order imposing  
25 the following requirements:

- 26 I. Pollinators shall not be added to Roundup Ready alfalfa fields grown only for  
27 hay production.  
28

1 II. Farm equipment used in Roundup Ready alfalfa production shall be properly  
2 cleaned after use.

3 A. Cleaning procedures for harvesters, tractors and tillage equipment shall  
4 be submitted to and approved by APHIS prior to implementation.

5 B. Cleaning procedures shall be designed to minimize the risk of Roundup  
6 Ready alfalfa seed and hay movement from authorized production site.

7 C. All equipment shall be cleaned in accordance with the approved  
8 procedures before it leaves the farm on which it came in contact with  
9 Roundup Ready alfalfa.

10 III. Roundup Ready alfalfa shall be handled and clearly identified to minimize  
11 commingling after harvest. Immediately after harvest, growers or seed  
12 producers shall store Roundup Ready alfalfa in specifically designated and  
13 clearly labeled containers.

14 As all Roundup Ready seed growers are under contract with Forage Genetics, and as  
15 all Roundup Ready alfalfa farmers have a license with Monsanto, Monsanto, Forage Genetics  
16 and APHIS shall work together to ensure that all Roundup Ready alfalfa farmers are aware of  
17 the above requirements.

18 It is also important that the organic and conventional alfalfa farmers learn where  
19 Roundup Ready alfalfa is grown so that they can test their own crops to determine if there  
20 has been contamination. Forage Genetics maintains GPS or plat mats identifying the location  
21 of all alfalfa seed production acreage. Mark McCaslin March 23 Direct Testimony at 9.  
22 Forage Genetics also requires growers who purchase Roundup Ready alfalfa in 17 Western  
23 states to provide field size and GPS locations at the time of purchase "to enable monitoring  
24 and enforcement of the Monsanto trait stewardship measures." *Id.* at 16. Within 30 days of  
25 the judgment, Forage Genetics shall provide the above identifying information to APHIS and  
26 APHIS shall make such information publicly available as soon as practicable, including, but  
27 not limited to, making such information available on the appropriate government website.  
28 Forage Genetics shall also use its best efforts to obtain field size and GPS locations of

1 Roundup Ready alfalfa in the remaining states and provide such information to APHIS for  
2 public disclosure.


3 **CONCLUSION**

4 For the reasons explained above, the intervenors' motion for reconsideration of the  
5 preliminary injunction order is DENIED. The Court will enter a final judgment (1) vacating  
6 the June 2005 deregulation decision; (2) ordering the government to prepare an EIS before it  
7 makes a decision on Monsanto's deregulation petition; (3) enjoining the planting of any  
8 Roundup Ready alfalfa in the United States after March 30, 2007 pending the government's  
9 completion of the EIS and decision on the deregulation petition; and (4) imposing the above  
10 conditions on the handling and identification of already-planted Roundup Ready alfalfa.

11 The parties shall jointly submit a written status report within 60 days of the date of  
12 this Order to update the Court on defendants' compliance with the injunction.

13 **IT IS SO ORDERED.**

14 Dated: May 3, 2007



15 **CHARLES R. BREYER**  
16 **UNITED STATES DISTRICT JUDGE**

United States District Court  
For the Northern District of California





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8 IN THE UNITED STATES DISTRICT COURT  
9 FOR THE NORTHERN DISTRICT OF CALIFORNIA  
10

11 GEERTSON SEED FARMS, et al.,

No. C 06-01075 CRB

12 Plaintiffs,

**MEMORANDUM AND ORDER**

13 v.

14 MIKE JOHANNNS, Secretary of the United  
15 States Department of Agriculture, et al.,

16 Defendants.  
17

18 In this lawsuit plaintiff alfalfa growers along with the Sierra Club and other farmer  
19 and consumer associations challenge the Department of Agriculture's decision to deregulate  
20 alfalfa genetically engineered to resist the herbicide glyphosate, the active ingredient in  
21 RoundUp ("Roundup Ready alfalfa"). Plaintiffs bring their claims pursuant to the National  
22 Environmental Policy Act ("NEPA"), the Endangered Species Act ("ESA"), and the Plant  
23 Protection Act ("PPA"). Now pending before the Court are the parties' cross-motions for  
24 summary judgment. The motions raise a close question of first impression: whether the  
25 introduction of a genetically engineered crop that might significantly decrease the availability  
26 or even eliminate all non-genetically engineered varieties is a "significant environmental  
27 impact" requiring the preparation of an environmental impact statement, at least when it  
28 involves the fourth largest crop in the United States.

**BACKGROUND**

The federal Plant Protection Act gives the Secretary of the United States Department of Agriculture (“USDA”) the authority to adopt regulations preventing the introduction and dissemination of plant pests. 7 U.S.C. § 7711(a); Center for Food Safety v. Johanns, 451 F.Supp.2d 1165, 1176 (D. Haw. 2006). Pursuant to this authority, the USDA, through the Animal and Plant Health Inspection Service (“APHIS”), regulates “organisms and products altered or produced through genetic engineering that are plant pests or are believed to be plant pests.” 7 C.F.R. § 340.0(a)(2) n.1. Such products/organisms are known as “regulated articles.” APHIS originally considered Roundup Ready alfalfa a regulated article; as such, it was unlawful for any person to introduce the alfalfa without first obtaining permission from APHIS. Id.

Any person may submit a petition seeking a determination that a regulated article does not present a plant pest risk and therefore should not be regulated. 7 C.F.R. § 340.6. In May 2003, Monsanto, the manufacturer of Roundup, submitted a petition requesting nonregulated status for Roundup Ready alfalfa, designated as event J101 and J163. Administrative Record (“AR”) 5482. Roundup Ready alfalfa is engineered to be glyphosate-tolerant by inserting a gene that codes for the enzyme 5-enolpyruvylshikimate-3-phosphate synthase into the alfalfa genome. AR 5501.

APHIS had several possible responses: it could approve the petition in whole, approve the petition in part, or deny the petition. AR 5503. If it denied the petition, commercial-scale production of Roundup Ready alfalfa would continue to be precluded, although the plant could still be grown in field trials, as it has since 1998. AR 5503. APHIS could also determine that Roundup Ready alfalfa poses no significant risk in certain geographic areas, but a significant risk in others, and therefore approve the petition in part; that is, approve the petition with a geographic limitation on where the genetically engineered alfalfa could be grown. AR 5504. Finally, APHIS could approve the petition in whole, which means that Roundup Ready alfalfa would no longer be subject to USDA regulation. AR 5505.

1 Before deciding Monsanto's petition, APHIS prepared an Environmental Assessment  
2 ("EA") and took public comments on the EA and the petition for deregulation. Of the 663  
3 comments received by the agency, 520 opposed deregulation. AR 5487.

4 One of the primary objections raised is that gene transmission may occur between  
5 glyphosate tolerant alfalfa and conventional and organic alfalfa, that is, that conventional and  
6 organic alfalfa will become "contaminated" with the engineered gene that makes Roundup  
7 Ready alfalfa tolerant to glyphosate. Such gene transmission is possible because alfalfa is  
8 pollinated by bees "and so the potential exists to move pollen from the glyphosate tolerant  
9 crop to hay and seed fields, as well as wild populations of alfalfa." AR 5488. Indeed, it is  
10 undisputed that insect pollination for alfalfa can occur up to at least two miles from the  
11 pollen source. *Id.* Farmers complained to APHIS that if Roundup Ready alfalfa is  
12 deregulated they will no longer be able to market their products as "organic," or at least as  
13 non-genetically engineered, and that this "contamination" will also impact those who sell  
14 organic livestock or livestock that is not fed any genetically engineered foods. AR 5488,  
15 5491, 5495. In addition, 75 percent of the alfalfa exported from the United States (five  
16 percent of the alfalfa market) is exported to Japan and Japan does not permit the import of  
17 glyphosate tolerant alfalfa; thus, the introduction of Roundup Ready alfalfa might also  
18 impact the export market. AR 5487.

19 Commentators also expressed concern that the deregulation of Roundup Ready alfalfa,  
20 and the concomittant increase in the use of Roundup, will cause the development of  
21 additional glyphosate-resistant weeds, as well as a dramatic increase in the amount of  
22 Roundup used in the environment.

23 Nonetheless, in June 2005, APHIS issued a Finding of No Significant Impact  
24 ("FONSI") and approved Monsanto's deregulation petition in whole; that is, the agency  
25 concluded that Roundup Ready alfalfa should be deregulated and sold without direct  
26 regulation by the USDA. AR 5485-5526.

27 The FONSI acknowledges that once Roundup Ready alfalfa is deregulated, it will not  
28 be subject to any "isolation distances;" that is, it will not be required to be grown more than

1 two miles from conventional or organic alfalfa crops. AR 5488; see also AR 5495 (“If  
2 APHIS grants non-regulated status to a transgenic events, APHIS does not have any further  
3 regulatory authority over this particular transgenic event”). APHIS nevertheless concluded  
4 that the risk of gene transmission is not significant because “organic production operations  
5 must develop and maintain an organic production system plan that outlines the steps it will  
6 take to avoid cross pollination from neighboring operations.” AR 5488. In other words, it  
7 would be “up to the individual organic seed or hay grower to institute those procedures that  
8 will assure” that their crops will not include any genetically engineered alfalfa. AR 5491.  
9 APHIS also noted that the states would still have the authority to establish some type of  
10 production zone. AR 5495. As for exports to Japan, APHIS concluded, without elaboration,  
11 that “[b]y employing reasonable quality control, it is highly unlikely that the level of  
12 glyphosate tolerant alfalfa will exceed 1% in conventional alfalfa hay” and that since Japan  
13 allows one percent of exports of a crop to contain genetically modified product, exports to  
14 Japan would not be affected. AR 5488.

15 In the EA, APHIS concluded that organic farmers and farmers who otherwise do not  
16 want to grow genetically engineered alfalfa will not be significantly impacted by the  
17 commercial use of Roundup Ready alfalfa because (1) non-genetically engineered alfalfa will  
18 “likely still be sold and available to those who wish to plant it;” and (2) farmers purchasing  
19 seed will know what they are purchasing because the seed will be labeled as glyphosate  
20 tolerant. AR 5511.

21 APHIS agreed with the objectors that the deregulation of Roundup Ready alfalfa  
22 could lead to the development of additional glyphosate-resistant weeds, but reasoned that this  
23 impact was not significant because weed species have developed resistance to every widely  
24 used herbicide; alternative herbicides are available to minimize the problem; and, in any  
25 event, “good stewardship may be the only defense against this potential problem.” AR 5492.

26 Plaintiffs now challenge APHIS’s decision to deregulate Roundup Ready alfalfa.  
27  
28



**DISCUSSION****I. NEPA**

NEPA “requires a federal agency such as [APHIS] to prepare a detailed EIS for all ‘major Federal actions significantly affecting the quality of the human environment.’” Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1211-12 (9th Cir. 1998) (quoting 42 U.S.C. § 4332(2)(C)). “NEPA ensures that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience.” Id. (internal quotation marks and citation omitted).

Accordingly, “[a] threshold question in a NEPA case is whether a proposed project will ‘significantly affect’ the environment, thereby triggering the requirement for an EIS.” Id. “Where an EIS is not categorically required, the agency must prepare an Environmental Assessment to determine whether the environmental impact is significant enough to warrant an EIS.” Ocean Advocates v. U.S. Army Corps of Engineers, 402 F.3d 846, 863 (9th Cir. 2005). “An EA is a concise public document that briefly provide[s] sufficient evidence and analysis for determining whether to prepare an EIS or a finding of no significant impact.” Blue Mountains Biodiversity Project, 161 F.3d at 1212.

Here, APHIS prepared an EA and, after receiving public comment, issued a finding of no significant impact and approved the deregulation of Roundup Ready alfalfa. See Anderson v. Evans, 371 F.3d 475, 488 (9th Cir. 2004) (if an EA results in a “finding of no significant impact”--known as a FONSI--the agency need not prepare an environmental impact statement). Plaintiffs contend that APHIS is required to prepare an EIS.

**A. Standard of Review**

The Court must determine whether APHIS’s “decision was based on consideration of the relevant factors, or whether its actions were arbitrary, capricious, an abuse of discretion or otherwise not in accordance with the law.” Blue Mountains Biodiversity Project, 161 F.3d at 1211 (internal quotation marks and citation omitted). “In short, [the Court] must ensure that the agency has taken a ‘hard look’ at the environmental consequences of its proposed



1 action.” Id. “A hard look includes considering all foreseeable direct and indirect impacts.”  
 2 Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1159 (9th Cir. 2006) (internal  
 3 quotation marks and citation omitted). “An agency’s decision not to prepare an EIS will be  
 4 considered unreasonable if the agency fails to supply a convincing statement of reasons why  
 5 potential effects are insignificant.” Blue Mountains Biodiversity Project, 161 F.3d at 1211  
 6 (internal quotation marks and citation omitted); see also Ocean Advocates, 402 F.3d at 865  
 7 (“[T]he agency must put forth a ‘convincing statement’ of reasons that explain why the  
 8 [agency action] will impact the environment no more than insignificantly”). “The statement  
 9 of reasons is crucial to determining whether the agency took a ‘hard look’ at the potential  
 10 environmental impact of a project.” Blue Mountains Biodiversity Project, 161 F.3d at 1212  
 11 (internal quotation marks and citation omitted).

## 12 **B. Analysis**

13 “[A]n EIS *must* be prepared if ‘substantial questions are raised as to whether a project  
 14 *may* cause significant degradation of some human environmental factor.’” Idaho Sporting  
 15 Cong. v. Thomas, 137 F.3d 1146, 1149 (9th Cir. 1998) (quoting Greenpeace Action v.  
 16 Franklin, 14 F.3d 1324, 1332 (9th Cir. 1992)). “Thus to prevail on a claim that [APHIS]  
 17 violated its statutory duty to prepare an EIS, a plaintiff need not show that significant effects  
 18 will in fact occur. It is enough for the plaintiff to raise substantial questions whether a  
 19 project may have a significant effect on the environment.” Blue Mountains Biodiversity  
 20 Project, 161 F.3d at 1212 (internal quotation marks and citation omitted). “Put another way,  
 21 a proposal can be considered controversial if substantial questions are raised as to whether a  
 22 project may cause significant degradation of some human environmental factor.” Anderson,  
 23 371 F.3d at 489.

24 “In determining whether a federal action requires an EIS because it significantly  
 25 affects the quality of the human environment, an agency must consider what ‘significantly’  
 26 means.” Ocean Advocates, 402 F.3d at 865. “Significantly,” has two components: context  
 27 and intensity. Id. (citing 40 C.F.R. § 1508.27). “Context refers to the setting in which the  
 28 proposed action take place.” Id. (citing 40 C.F.R. § 1508.27(a)). “Intensity means ‘the

1 severity of the impact.” Id. (citing 40 C.F.R. § 1508.27(b)).

2 Several factors must be considered in evaluating intensity, including the “degree to  
3 which the effects on the quality of the human environment are likely to be highly  
4 controversial;” “[t]he degree to which the possible effects on the human environment are  
5 highly uncertain or involve unique or unknown risks;” and “[t]he degree to which the  
6 proposed action affects public health and safety.” 40 C.F.R. § 1508.27(b)(2), (4), (6).

7 The context of the inquiry in this case is undisputed. Alfalfa is the fourth most widely  
8 grown crop in the United States. The bulk of alfalfa seed (as opposed to alfalfa forage) is  
9 grown in limited geographic areas within a few states. California is the largest producer of  
10 alfalfa seed, and California, Idaho, Washington and Nevada together produce 85 percent of  
11 all domestic alfalfa seed. In this context, plaintiffs identify what they believe are several  
12 significant environmental impacts that will be caused by Roundup Ready alfalfa, or that at  
13 least may be caused by the deregulation of the genetically engineered alfalfa.

14 **1. Gene transmission to non-genetically engineered alfalfa**

15 Plaintiffs contend that one significant environmental impact resulting from the  
16 introduction of Roundup Ready alfalfa is that genetically engineered alfalfa will modify non-  
17 genetically engineered alfalfa such that it, too, will contain the gene that confers tolerance to  
18 the herbicide glyphosate. Plaintiffs label such effect “biological contamination.” Biological  
19 contamination can occur through pollination of non-genetically engineered plants by  
20 genetically engineered plants or by the mixing of genetically engineered seed with natural, or  
21 non-genetically engineered seed.

22 Alfalfa seeds are pollinated by bees and, as a result, there is a realistic potential for  
23 contamination from seed fields to nearby seed fields; indeed, APHIS admits that insects  
24 pollinate alfalfa up to two miles from the pollen source. AR 5488. Such gene transmission  
25 is especially likely in this context given the geographic concentration of alfalfa seed  
26 production. Once the gene transmission occurs and a farmer’s seed crop is contaminated  
27 with the Roundup Ready gene, there is no way for the farmer to remove the gene from the  
28

1 crop or control its further spread. AR 4287. And alfalfa is a perennial crop; the crop is only  
2 replanted every three to four years.

3 Plaintiffs complain that the “contamination” of organic and conventional crops with  
4 the genetically engineered gene will have negative economic and socioeconomic effects on  
5 farmers. Organic farmers will no longer be able to market their seed as non-genetically  
6 engineered, rendering their crops less valuable; consumers pay a premium for organic and  
7 non-genetically engineered food. Similarly, organic livestock farmers will have a more  
8 difficult time purchasing non-genetically engineered alfalfa as food for livestock and thus  
9 will be unable to market their livestock as organic or at least fed with non-genetically  
10 engineered food. All of these farmers may be required to test their crops and livestock for  
11 traces of the genetically-engineered alfalfa. Even non-organic farmers who want to raise  
12 genetically-engineered free plants and livestock will be impacted.

13 APHIS acknowledges that once Roundup Ready alfalfa is deregulated the government  
14 will not be able to impose isolation distances on the growers of genetically engineered  
15 alfalfa; in other words, it cannot ensure that farmers using the genetically engineered seed  
16 will be more than two miles away from seed farmers who do not wish to grow engineered  
17 alfalfa. AR 5488. APHIS nonetheless concluded that the introduction of Roundup Ready  
18 alfalfa will have no significant environmental impact, reasoning as follows:

19 [T]he National Organic Program, which is administered by USDA’s  
20 Agricultural Marketing Service, requires organic production operations to have  
21 distinct, defined boundaries and buffer zones to prevent unintended contact  
22 with prohibited substances, such as modified genes, from adjoining land that is  
23 not under organic management. However, the determination of the size of the  
buffer zones is left up to the organic producer and the certifying agent on a  
case-by-case basis. Furthermore, organic production operations must develop  
and maintain an organic production system plan that outlines the steps it will  
take to avoid cross pollination from neighboring operations.

24 AR 5488, 5510. It also reasoned that federal organic standards do not require the testing of  
25 inputs or products for genetically engineered genes and that the unintentional presence of the  
26 engineered genes will not “necessarily” constitute a violation of national organic standards.  
27 AR 5511.



1 In the EA, APHIS concluded, without further elaboration, that non-genetically  
2 engineered alfalfa seed “will likely still be sold and will be available to those who wish to  
3 plant it,” and that genetically engineered seed will be marketed and labeled as glyphosate  
4 tolerant so farmers will know when they are purchasing Roundup Ready alfalfa seed. AR  
5 5511. APHIS also found that gene transmission is not likely to occur with forage as opposed  
6 to seed crops because forage fields are typically harvested before the seed is set and allowed  
7 to mature. *Id.*

8 APHIS’s reasons for concluding that the potential for the transmission of the  
9 genetically engineered gene is not significant are not “convincing” and do not demonstrate  
10 the “hard look” that NEPA requires. See Blue Mountains Biodiversity Project, 161 F.3d at  
11 1211. APHIS did not conclude that gene transmission would not occur; indeed, an internal  
12 APHIS email acknowledges that “[i]t may be hard to guarantee that seeds or sprouts are GE  
13 free.” AR 2816. Instead, it in effect concluded that whatever the likelihood of gene  
14 transmission, such impact is not significant because it is the organic and conventional  
15 farmers’ responsibility to ensure that such contamination does not occur. It rested its “no  
16 significant impact” decision on this conclusion even though it made no inquiry into whether  
17 those farmers who do not want to grow genetically engineered alfalfa can, in fact, protect  
18 their crops from contamination, especially given the high geographic concentration of seed  
19 farms and the fact that alfalfa is pollinated by bees that can travel more than two miles.  
20 Neither the EA nor the FONSI identify a single method that an organic farmer can employ to  
21 protect his crop from being pollinated by a bee that travels from a nearby genetically  
22 engineered seed farm, even assuming the farmer maintains a “buffer zone.”

23 “Preparation of an EIS is mandatory where uncertainty may be resolved by further  
24 collection of data, or where the collection of data may prevent speculation on potential . . .  
25 effects. The purpose of an EIS is to obviate the need for speculation by insuring that  
26 available data are gathered and implemented prior to the proposed action.” National Parks  
27 Conservation Ass’n v. Babbitt, 241 F.3d 722, 732 (9th Cir. 2001) (internal quotation marks  
28 and citation omitted). The further collection of data can inform APHIS as to the likely extent

1 of any gene transmission and the realistic measures, if any, that may be taken to prevent or at  
2 least reduce such contamination. Such data is especially important given that one option  
3 APHIS has is to approve Monsanto's "petition with a geographic limitation stipulating that  
4 the Roundup Ready could only be grown without APHIS authorization in certain geographic  
5 areas." AR 5504. APHIS's rejection of this option without making any inquiry into the  
6 extent of likely gene transmission from genetically engineered seed crops to non-engineered  
7 seed crops is arbitrary and capricious; it did not obtain the very information it needs to  
8 determine if such an option is warranted. See Earth Island Institute, 442 F.3d at 1160 ("If an  
9 agency has failed to make a reasoned decision based on an evaluation of the evidence, [a  
10 court] may properly conclude that the agency has acted arbitrarily and capriciously.");  
11 Foundation for N. Am. Wild Sheep v. U.S. Dep't of Agr., 681 F.2d 1172, 1178 (9th Cir.  
12 1982) (holding that agency violated NEPA when its EA "failed to address certain crucial  
13 factors, consideration of which was essential to a truly informed decision whether or not to  
14 prepare an EIS").

15 APHIS's conclusion that forage alfalfa will not be contaminated is also arbitrary and  
16 capricious. APHIS baldly concluded that such gene transmission is not likely because  
17 farmers typically harvest alfalfa forage fields before the seed matures. APHIS failed to  
18 consider, however, that because of weather--which is beyond a farmer's control--a farmer  
19 cannot always harvest his field at the most optimal time. APHIS made no inquiry into how  
20 often farmers are actually able to harvest their forage crop before seeds mature and no  
21 inquiry into the likelihood of gene transmission when they cannot. Without such data,  
22 APHIS's conclusion is arbitrary. See Earth Island Institute, 442 F.3d at 1159 ("A hard look  
23 should involve a discussion of adverse impacts that does not improperly minimize negative  
24 side effects").

25 APHIS's reasoning that farmers will not "necessarily" be prohibited from labeling  
26 their products as organic is wholly inadequate. First, the statement itself is equivocal; even  
27 APHIS is uncertain whether farmers can still label their products organic under the federal  
28 government's organic standards. Second, many farmers and consumers have higher



1 standards than what the federal government currently permits; to these farmers and  
2 consumers organic means not genetically engineered, even if the farmer did not intend for his  
3 crop to be so engineered. And, as APHIS acknowledges, many countries, including Japan,  
4 do not allow for the importation of genetically engineered alfalfa regardless of what the  
5 United States government permits. Third, and most importantly, APHIS's comment simply  
6 ignores that these farmers do not want to grow or feed to their livestock genetically  
7 engineered alfalfa, regardless of how such alfalfa can be marketed.

8 APHIS's assertion that exports to Japan will not be harmed because Japan allows one  
9 percent of its imported alfalfa to be transgenic and "[b]y employing reasonable quality  
10 control, it is highly unlikely that the level of glyphosate tolerant alfalfa will exceed 1% in  
11 conventional alfalfa hay," AR 5488, is also not convincing. Neither the EA nor the FONSI  
12 contain any reference to any material in support of APHIS's conclusion that gene  
13 transmission is "highly unlikely" to occur with "reasonable quality control." APHIS does  
14 not identify any "quality control" that will prevent gene transmission between neighboring  
15 seed farms. It similarly does not identify any material to support its EA statement that non-  
16 genetically engineered alfalfa will "likely still be sold and available to those who wish to  
17 plant it." AR 5511. See Blue Mountains Biodiversity Project, 1161 F.3d at 1214 ("The EA  
18 contains virtually no reference to any material in support of or in opposition to its  
19 conclusions. That is where the Forest Service's defense of its position must be found").

20 APHIS argues in its brief that the extent of any gene transmission is, in any event,  
21 irrelevant because NEPA requires an agency to consider physical environmental impacts, not  
22 economic or financial impacts. APHIS overstates the law. To determine whether NEPA  
23 requires an agency to consider a particular effect, courts must "look at the relationship  
24 between that effect and the change in the physical environment caused by the major federal  
25 action at issue." Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766,  
26 773 (1983); see also San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm'n,  
27 449 F.3d 1016, 1029 (9th Cir. 2006) ("[T]he essential analysis must focus on the closeness of  
28 the relationship between the change in the environment and the 'effect' at issue") (internal

1 quotation marks and citation omitted); Ashley Creek Phosphate Co. v. Norton, 420 F.3d 934,  
2 943 (9th Cir. 2005) (“NEPA does not require an agency to assess all impacts of a project,  
3 only those that have a ‘reasonably close causal relationship’ with ‘a change in the physical  
4 environment”). Economic effects are relevant “when they are ‘*interrelated*’ with ‘natural or  
5 physical environmental effects.’” Ashley Creek Phosphate Co., 420 F.3d at 944 (quoting 40  
6 C.F.R. § 1508.14 (“[E]conomic or social effects are not intended by themselves to require  
7 preparation of an environmental impact statement. When an environmental impact statement  
8 is prepared and economic or social and natural or physical environmental effects are  
9 interrelated, then the environmental impact statement will discuss all of these effects on the  
10 human environment”)).

11 Here, the economic effects on the organic and conventional farmers of the  
12 government’s deregulation decision are interrelated with, and, indeed, a direct result of, the  
13 effect on the physical environment; namely, the alteration of a plant specie’s DNA through  
14 the transmission of the genetically engineered gene to organic and conventional alfalfa.  
15 APHIS was required to consider those effects in assessing whether the impact of its proposed  
16 action is “significant.” And, in fact, APHIS did mention those effects in the FONSI and EA,  
17 but, as explained above, its reasons for concluding that the effect on organic and  
18 conventional farmers is not significant are not “convincing.”

19 Finally, the government argues that even if the deregulation of Roundup Ready alfalfa  
20 could result in the elimination of all non-genetically engineered alfalfa--in other words, there  
21 would be no alfalfa grown in the United States that does not contain the engineered gene that  
22 confers tolerance to glyphosate--such a result would still not constitute a significant  
23 environmental impact because APHIS has determined that the introduction of that gene to  
24 alfalfa is harmless to humans and livestock, that is, it is not toxic or pathogenic. Draft  
25 Transcript of January 19, 2007 Hearing at 54-55. APHIS’s position is based on its finding  
26 that the engineered gene is similar to another gene already present in non-engineered alfalfa  
27 and is the equivalent to a natural enzyme found in both green plants and microorganisms that  
28 are common in nature. AR 5482, 5483, 5490-91, 5501-5502, 5491. In sum, APHIS

1 concluded that the engineered enzyme is equivalent in all biological respects to those that are  
2 common and harmless in nature and therefore the introduction of that engineered gene into  
3 conventional or organic alfalfa is not a significant environmental impact as a matter of law.

4 The Court accepts, as it must, the agency's determination that Roundup Ready alfalfa  
5 does not have any harmful health effects on humans or livestock. See Natural Res. Defense  
6 Council, Inc. v. EPA, 863 F.2d 1420, 1430 (9th Cir. 1988) ("A reviewing court should be at  
7 its most deferential in reviewing an agency's scientific determinations in an area within the  
8 agency's expertise"). Public health and safety, however, is only *one* of factors that an  
9 agency should consider when determining whether a major federal action may have a  
10 significant environmental impact. 40 C.F.R. § 1508.27(b). The government does not cite  
11 any case, and the Court is aware of none, which holds that an impact is not significant simply  
12 because a federal agency determines that the major federal action does not jeopardize the  
13 public's health and safety. The paucity of caselaw is unsurprising given that one of  
14 Congress's express goals in adopting NEPA was to "attain the widest range of beneficial  
15 uses of the environment without degradation, risk to health and safety, *or other undesirable*  
16 *and unintended consequences*." 42 U.S.C. § 4331(b)(3) (emphasis added). A federal action  
17 that eliminates a farmer's choice to grow non-genetically engineered crops, or a consumer's  
18 choice to eat non-genetically engineered food, is an undesirable consequence: another NEPA  
19 goal is to "maintain, wherever possible, an environment which supports diversity and variety  
20 of individual choice." 42 U.S.C. § 4331(b)(4).

21 To put it another way, if the government's action could eliminate all alfalfa, there  
22 would be no dispute that such action has a significant environmental impact, even though the  
23 primary impact is the economic effect on alfalfa and livestock farmers. For those farmers  
24 who choose to grow non-genetically engineered alfalfa, the possibility that their crops will be  
25 infected with the engineered gene is tantamount to the elimination of all alfalfa; they cannot  
26 grow their chosen crop. The government's apparent belief that the farmers' and consumers'  
27 choice is irrational because the engineered gene is similar in all biological respects to a gene  
28 found in nature (although never in alfalfa) is beside the point. An action which potentially



1 eliminates or least greatly reduces the availability of a particular plant--here, non-engineered  
2 alfalfa--has a significant effect on the human environment. See 40 C.F.R. § 1508.27(b) (“A  
3 significant effect may exist even if the Federal agency believes that on balance the effect will  
4 be beneficial”).

5 One other point bears mention. At oral argument the Court asked the government  
6 why APHIS addressed (albeit inadequately) the economic impact on farmers if it is the  
7 agency’s position that, regardless of how much gene transmission occurs, such transmission  
8 is insignificant because it is harmless. The government candidly explained that it addressed  
9 these possible effects because Roundup Ready alfalfa is the first crop that has been  
10 engineered to resist a herbicide “and in which the record suggests that there’s at least a  
11 chance that the [genetically engineered] gene could be transmitted.” Draft Transcript of  
12 January 19, 2007 Hearing at 53. The government’s response highlights that APHIS is  
13 operating in uncharted territory. In light of the Court’s conclusion that the permanent  
14 modification of a plant’s genetic makeup through genetic engineering is an effect on the  
15 human environment, and the evidence that such transmission can and will occur, and that  
16 APHIS did not adequately analyze the extent of such transmission, the possible effects of  
17 APHIS’s deregulation decision are “highly uncertain or involve unique or unknown risks.”  
18 40 C.F.R. § 1508.27(5).

19 The Court cautions that it is not ruling that Roundup Ready alfalfa is harmful to  
20 consumers or livestock. Rather, the significant impact that requires the preparation of an EIS  
21 is the possibility that the deregulation of Roundup Ready alfalfa will degrade the human  
22 environment by eliminating a farmer’s choice to grow non-genetically engineered alfalfa and  
23 a consumer’s choice to consume such food.

## 24 **2. The development of alfalfa weeds resistant to herbicides**

25 Plaintiffs also complain that the deregulation of Roundup Ready alfalfa will cause  
26 Roundup-resistant weeds, and that such an effect is sufficiently significant to require the  
27 preparation of an EIS. APHIS acknowledges that the use of Roundup Ready alfalfa may  
28 result in the development of Roundup-tolerant weeds. AR 5492. The resistance develops

1 because of the increased use of Roundup on the crops. APHIS found that such a possible  
2 impact nevertheless does not warrant the preparation of an EIS because weed species often  
3 develop resistance to herbicides and the agricultural community is addressing the issue.  
4 “Alternative herbicides and strategies are available that may minimize the problem. Based  
5 on the comments, the alfalfa growers and weed scientists understand that good stewardship  
6 may be the only defense against this potential problem.” AR 5492

7 APHIS’s reasons for finding the development of glyphosate resistant weeds not to be  
8 significant are not convincing. Reasoning that weed species often develop resistance to  
9 herbicides is tantamount to concluding that because this environmental impact has occurred  
10 in other contexts it cannot be significant. Nothing in NEPA, the relevant regulations, or the  
11 caselaw support such a cavalier response.

12 The assertion that “good stewardship” may be the only defense against such weeds is  
13 equally unconvincing. Such a conclusion is not the same as a finding that the development  
14 of the weeds is not a significant environmental impact. This is especially so given that  
15 neither the FONSI nor the EA contain any analysis as to what exactly constitutes good  
16 stewardship and how likely it is to be practiced successfully. See Blue Mountains  
17 Biodiversity Project, 161 F.3d at 1214. There may be ways to reduce the proliferation of  
18 weeds, but if farmers are not engaging (or cannot engage) in those practices, then the  
19 availability of those practices does not ameliorate the potential environmental impact.

20 Finally, APHIS failed to evaluate the cumulative impact of the deregulation of  
21 Roundup Ready alfalfa. 40 C.F.R. § 1508.7 (“‘Cumulative impact’ is the impact on the  
22 environment which results from the incremental impact of the action when added to other  
23 past, present, and reasonably foreseeable future actions regardless of what agency (Federal or  
24 non-federal) or person undertakes such other actions. Cumulative impacts can result from  
25 individually minor but collectively significant actions taking place over a period of time.”) .  
26 While alfalfa is the first large scale perennial Roundup Ready crop, APHIS has deregulated  
27 other Roundup Ready crops, including corn and soybeans, and other deregulation petitions  
28 are pending. While the deregulation of one crop in and of itself might not pose a significant



1 risk for the development of glyphosate resistant weeds, when all the crops are considered  
2 cumulatively such a risk may become apparent. There is nothing in the FONSI or EA that  
3 suggests APHIS even considered how much Roundup use will increase, or even how much  
4 such use has increased since the introduction of the other Roundup Ready crops; to the  
5 contrary, the EA specifically states that it “does not address the separate issue of the potential  
6 use of the herbicide glyphosate in conjunction with these plants.” AR 5501. APHIS’s failure  
7 to consider in the context of the development of Roundup resistant weeds that there are  
8 already other Roundup Ready crops on the market, and more crops seeking to enter the  
9 market, means that it did not take the “hard look” NEPA requires.

### 10 3. Increased use of glyphosate

11 In a related argument, plaintiffs assert that--even apart from the development of  
12 glyphosate-resistant weeds--APHIS failed to consider that the deregulation of Roundup  
13 Ready alfalfa will result in the increased use of Roundup, and likewise failed to consider how  
14 that increased use of Roundup, perhaps doubling its use on alfalfa fields in California alone,  
15 will impact the environment. And, argue plaintiffs, APHIS should have considered this  
16 increased use in the context of its deregulation of other Roundup Ready crops; in other  
17 words, APHIS must inquire whether the introduction of the many Roundup Ready crops will  
18 together increase the use of Roundup and impact the environment.

19 APHIS responds that there are other federal agencies, primarily the Environmental  
20 Protection Agency (“EPA”), that are responsible for regulating herbicides and tolerance  
21 levels in crops for such chemicals. It also contends that there is no evidence that farmers will  
22 misuse Roundup, that is, use it contrary to the manufacturer’s instructions and it notes that  
23 Roundup use will replace more toxic herbicides.

24 Since the Court has concluded that APHIS must consider the cumulative impact of  
25 increased glyphosate use with respect to the development of glyphosate-resistant weeds,  
26 APHIS will have to examine the increased use of glyphosate; thus, the Court declines to  
27 specifically rule on this claim. The Court notes, however, that it is unclear from the record  
28 whether any federal agency is considering the cumulative impact of the introduction of so

1 many glyphosate resistant crops; one would expect that some federal agency is considering  
2 whether there is some risk to engineering all of America's crops to include the gene that  
3 confers resistance to glyphosate.

4 **C. Standing**

5 The government contends that plaintiffs lack standing to bring their NEPA claims.  
6 While a court must ordinarily address the question of standing first, in this case the question  
7 of standing is inextricably intertwined with the merits and the Court's discussion above  
8 demonstrates why plaintiffs have standing.

9 Article III standing requires "that the plaintiff show (1) an injury in fact that is both  
10 (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical;  
11 (2) that the injury is fairly traceable to the challenged action of the defendant; and (3) a  
12 likelihood that the injury will be redressed by a favorable decision." Ashley Creek  
13 Phosphate Co., 420 F.3d at 937.

14 The government argues that plaintiffs have not shown injury in fact for two reasons.  
15 First, it repeats its argument that economic interests do not fall "within NEPA's zone of  
16 interests." Gov't Reply at 6 (quoting Ashley Creek Phosphate Co., 420 F.3d at 938, 940).  
17 As the Court explained, supra, however, economic interests that are interrelated with natural  
18 or physical environmental effects fall within NEPA's zone of interests. The alfalfa farmer  
19 plaintiffs' potential economic injury arises directly from the environmental impact of  
20 APHIS's decision to deregulate Roundup Ready alfalfa. In Ashley Creek, in contrast, the  
21 plaintiffs' economic injury arose from increased competition, not from any environmental  
22 impact. Id. at 940.

23 Second, the government complains that plaintiffs have not shown a sufficient  
24 "geographic nexus" because they do not offer evidence that they farm near a genetically  
25 engineered alfalfa crop. The deregulation decision was made only recently, however, and at  
26 oral argument plaintiffs explained that the planting of the genetically engineered crop will  
27 occur in the spring; thus, it is premature for plaintiffs to show such injury. Plaintiffs need not  
28 wait until the genetically engineered alfalfa is planted near their alfalfa fields to bring suit, or

1 until their fields are contaminated with genetically engineered seed mixed with non-  
 2 engineered seed. “[T]o require actual evidence of environmental harm, rather than an  
 3 increased risk based on a violation of the statute, misunderstands the nature of environmental  
 4 harm and would undermine the policy of the . . . Act.” Central Delta Water Agency v.  
 5 United States, 306 F.3d 947, 948 (9th Cir. 2002). “[T]he possibility of future injury may be  
 6 sufficient to confer standing on plaintiffs; threatened injury constitutes ‘injury in fact.’” Id. at  
 7 947. As is explained above, plaintiffs have established a “reasonable probability” that their  
 8 organic and conventional alfalfa crops will be infected with the engineered gene, especially  
 9 given the undisputed concentration of alfalfa seed farms. They have also established the  
 10 reasonable probability of the development of additional glyphosate resistant weeds. Such  
 11 threatened injury is sufficient to confer standing. The law does not require plaintiffs to meet  
 12 the impossible task of proving that their alfalfa farms have already been contaminated. See  
 13 Citizens for Better Forestry v. U.S. Dep’t of Agriculture, 341 F.3d 961, 971-72 (9th Cir.  
 14 2003) (“Were we to agree . . . that a NEPA plaintiff’s standing depends on ‘proof’ that the  
 15 challenged federal project will have particular environmental effects, we would in essence be  
 16 requiring that the plaintiff conduct the same environmental investigation that he seeks in his  
 17 suit to compel the agency to undertake.”) (internal quotation marks and citation omitted).

18 Finally, at oral argument the Court asked the government who would have standing if,  
 19 as it asserts, even the organic and conventional alfalfa farmers do not. The government  
 20 responded that in its view no one has standing to challenge the deregulation decision in light  
 21 of APHIS’s finding that the engineered gene is harmless. As the Court explained, supra, it  
 22 does not agree with APHIS’s cramped reading of what constitutes an environmental impact.

## 23 II. OTHER CLAIMS

24 Since the Court has concluded that APHIS must prepare an EIS before approving the  
 25 petition to deregulate Roundup Ready alfalfa, it need not address plaintiffs’ claims under the  
 26 ESA and PPA. The agency’s decision may be different after it gathers the relevant data and  
 27 considers the public’s comments on such data; accordingly, the Court will not now decide the  
 28 additional grounds for challenging the agency’s decision. See Thomas v. Petersen, 753 F.2d



1 754, 761 n.4 (9th Cir. 1985). Plaintiffs' ESA and PPA claims are therefore dismissed  
2 without prejudice.

### 3 CONCLUSION

4 NEPA "is our basic national charter for protection of the environment." 40 C.F.R.  
5 § 1500.1(a). "NEPA emphasizes the importance of coherent and comprehensive up-front  
6 environmental analysis to ensure informed decision making to the end that 'the agency will  
7 not act on incomplete information, only to regret its decision after it is too late to correct.'" Blue Mountains Biodiversity Project, 161 F.3d at 1216 (quoting Marsh v. Oregon Natural  
8 Resources Council, 490 U.S. 360, 371 (1989)). "An EIS is required of an agency in order  
9 that it explore, more thoroughly than an EA, the environmental consequences of a proposed  
10 action whenever 'substantial questions are raised as to whether a project *may* cause  
11 significant [environmental] degradation." Id. (internal quotation marks and citation  
12 omitted).

13  
14 "That is exactly the circumstances of this case." Id. Substantial questions are raised  
15 as to whether (1) the deregulation of Roundup Ready alfalfa without any geographic  
16 restrictions will lead to the transmission of the engineered gene to organic and conventional  
17 alfalfa; (2) the possible extent of such transmission; and (3) farmers' ability to protect their  
18 crops from acquiring the genetically engineered gene. Substantial questions are also raised  
19 as to the extent to which Roundup Ready alfalfa will contribute to the development of  
20 Roundup-resistant weeds, especially when considered in conjunction with the already  
21 deregulated and soon-to-be deregulated Roundup Ready crops, and as to how farmers will  
22 address such weeds. APHIS failed to answer these substantial questions, concluding instead  
23 that any environmental impact is insignificant because gene transmission is the problem of  
24 the organic and conventional farmers and weeds always develop resistance to herbicides. As  
25 such reasons are not "convincing" and do not demonstrate that the agency took a "hard look"  
26 at the potential environmental impacts of its deregulation decision, plaintiffs' motion for  
27 summary judgment on its NEPA claim that APHIS is required to prepare an EIS is  
28 GRANTED. Defendants' cross motion on the NEPA claim is DENIED, and the parties'

1 cross-motions on the other claims are dismissed as moot in light of the Court's dismissal of  
2 those claims without prejudice.

3 The parties shall meet and confer and submit a proposed Judgment to the Court on or  
4 before February 26, 2007.

5 **IT IS SO ORDERED.**

6 Dated: Feb. 13, 2007

7 /s/  
CHARLES R. BREYER  
UNITED STATES DISTRICT JUDGE

United States District Court  
For the Northern District of California